In the Abstract

Please amend the Abstract as follows:

A method is disclosed for designing two separable filters, ***LPP*** & ***HPP***, that~~, when applied in sequence with a subtraction step,~~ approximates the circularly symmetric frequency response achievable using a non-separable filter. The method ~~of the present invention comprising: First, (a) selecting~~ selects a cut-off frequency and ~~designing~~ designs ~~therefrom~~ a 1-D low pass filter ~~**LP such that: LP** = [X_{-n}, $X_{-(n-1)}$, ... X_0, ... X_{n-1}, X_n]~~. Next, ~~(b)~~ the method obtains ~~obtaining~~ a low pass 2-D filter ~~***LPP*** by performing the operation: **LP*** X **LP**; wherein **LP*** is a column vector having the same entries as **LP** and ***LPP*** having dimensions given by: {2n+1, 2n+1};~~ and ~~generating~~ generates a 2-D ~~c~~ountour plot therefor. The method designs ~~Next, (c) designing~~ a 1-D high pass filter ~~**HP** such that: **HP** = [Y_{-m}, $Y_{-(m-1)}$, ... Y_0, ... Y_{m-1}, Y_m]. Next, (d) obtaining~~ and obtains a 2-D high pass filter ~~***HPP*** by performing the operation: **HP*** X **HP**; wherein **HP*** is a column vector having the same entries as **HP** and ***HPP*** having dimensions: {2m+1, 2m+1}~~ and ~~obtaining~~ a 2-D contour plot therefor. A ~~Next, (e) repeating (c) through (d) until the 2-D contour plot of ***HPP*** overlaps the 2-D countour plot of ***LPP***. Next, (f) generating a~~ 2-D filter is generated ~~***ONE***~~ having the dimensions of ~~that of~~ the 2-D high pass filter ~~***HPP***~~ with the only non-zero entry of value 1 located at the center ~~of ***ONE***~~. A ~~Next, (g) creating~~ matrix is created ~~***HPPinv***~~ by subtracting the 2-D high pass filter ~~***HPP***~~ from the 2-D filter ~~***ONE***~~. The low pass 2-D filter is convolved ~~Next, (h) convolving ***LPP***~~ with ~~***HPPinv***~~ the matrix to obtain ~~***DSCRN*** having dimensions: {2m+2n+1, 2m+2n+1}; and obtaining a 2-D contour plot therefor. Next, (i) repeating (a) through (h) until, by an examination of the 2-D contour plot of ***DSCRN***,~~ an approximation to a desired circular symmetry ~~is achieved~~.